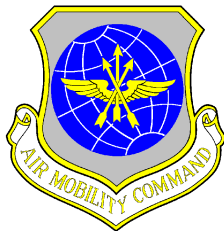


23 JULY 2001



Aerospace Medicine

RESPIRATORY PROTECTION PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the AFDPO WWW site at:
<http://afpubs.hq.af.mil>.

OPR: 305th AMDS/SGPB (SrA DePaolis)
Supersedes MAFBI 48-101, 5 Apr 1996

Certified by: 305th MDG/CC (Col Pamela Reidy)
Pages: 6
Distribution: F

This instruction provides guidelines to define organizational, supervisory and individual responsibilities and establishes procedures for the proper issue, use, storage and cleaning of respirators. It applies to all organizations at McGuire Air Force Base (AFB) and provides the minimum local guidelines required to conduct an acceptable base level respiratory protection program.

SUMMARY OF REVISIONS

Revision consisted of updating references. Deletion of Respirator (Issue Exception Code) IEX coding for McGuire AFB. AF Form 2772, **Certificate of Respirator Fit Test**, changed to 'Respirator Fit Letter'. Base Fire Protection Flight will no longer perform fit testing on self-contained breathing apparatus (SCBA). Supply responsibilities have been realigned. Gas permeable and soft contact lens use allowed. Shop supervisors' responsibilities now include: monitoring of breathing air sources when applicable; contact Bioenvironmental for fit-testing and training of all shop personnel on program.

1. References:

- 1.1. 29 Code of Federal Regulations (CFR), Part 1910.134, *Respiratory Protection*
- 1.2. Air Force Occupational Safety and Health (AFOSH) Standard 48-137, *Respiratory Protection Program*
- 1.3. AFOSH Std. 161-17, *Standardized Occupational Health Program*
- 1.4. Air Force Instruction (AFI) 32-2001, *Fire Protection Standard*
- 1.5. AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Prevention and Health Program*
- 1.6. AFI 48-101, *Aerospace Medical Operations*

1.7. Technical Order (T.O.) 42B-1-22, *Quality Control of Compressed Breathing Air*

1.8. T.O. 42A-1-1, *Safety, Fire Precaution, Health Promotion, Aspects of Painting and Paint Removal*

1.9. National Fire Protection Association (NFPA) 1500, *Standard on Fire Department Occupational Safety and Health Program*

2. General Information:

2.1. The 305th Aerospace Medicine Squadron (AMDS) Bioenvironmental Engineering Flight (BEF), 305 AMDS/SGPB, in consultation with the Occupational Health Working Group (OHWG), is the sole authority in determining whether respiratory protection is required or recommended, beyond published Technical Orders. Respirators are either required or recommended in preventing workers from exposure to toxic levels of materials. Workers, who are required or recommended by BEF to wear respirators, will be enrolled into the Base Respiratory Protection Program.

2.2. Enrollment in the Base Respiratory Protection Program (RPP) is based on workplace evaluation conducted by BEF. Air Force employees in an Air Force workplace will not wear elective, voluntary use or privately procured respirators. This requirement does not apply to filtering face piece devices. BEF will select the type of respirators required based on the hazard evaluation in the workplace. Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH) will be authorized.

2.3. Required respirators will be ordered through the 305th Logistics Readiness Squadron by workplaces after approval from the BEF on the specific type of respirator. Each person must have his or her own respirator for routine use. Workers may use a common-use respirator when it is used for emergency rescue, spill clean-ups, short-term on-the-job training orientation, or when respirators are used for non-routine task i.e. used less than once a month.

3. Responsibilities:

3.1. Commanders will ensure that all requirements of this instruction are followed in establishing an acceptable respiratory protection program if any personnel in their organization use respiratory protection. They will ensure the resources are available to procure respiratory protection when it is required or recommended.

3.2. The OHWG and the Aeromedical Council will ensure medical evaluations are conducted IAW established evaluation protocol for respirator users. Initial and periodic examinations are conducted by Physical Exams.

3.3. 305 AMDS Bioenvironmental Engineering Flight (BEF) will:

3.3.1. Determine when respiratory protection is required or recommended based on a hazard evaluation of the workplace and or published Occupational Safety and Health Administration (OSHA) requirements and T.O. These hazard evaluations will include calculated or actual air contaminant concentrations.

3.3.2. Recommend appropriate respiratory protection to commanders and supervisors such as air-line, full-face, half-face or emergency type respirators. Review and approve workplaces' oper-

ating instructions (OIs) on the use and maintenance of respirators. Check on the use and storage of respirators in the actual work setting during annual surveys.

3.3.3. Conduct initial and annual fit-testing and respiratory training of each worker on the use and maintenance of the respirators once cleared by a medical provider. For proof of certification and training, a 'Respirator Fit Test' letter will be issued to the workplace supervisor. More frequent training will be done if required by a specific standard (e.g., asbestos and lead every 6 months). Training and proof of fit test will also be documented in the computerized Command Core system.

3.3.4. Assist the Base Fire Protection Flight on respirator training for the use and maintenance of self contained breathing apparatus (SCBA), if requested.

3.4. The 305th Civil Engineering Fire Protection Flight will conduct respirator fit training on the use and maintenance of self-contained breathing apparatus (SCBA). BEF will provide fit-testing for workers required to wear SCBA. All members assigned to the Fire Protection Flight must adhere to the requirements of NFPA 1500, Section 5.3.

3.5. Air National Guardsmen and Air Force Reservists, whose operations at McGuire AFB dictate the use of respiratory protection, shall be entered into the program through their respective units. These personnel will be initially and annually fit-tested and trained by the reservist/guardsman BEF technician during their Unit Training Assembly (UTA) weekends. (Note: medical evaluation by a Reserve provider still needs to be accomplished before any fit testing and training.)

3.6. The 305th Logistics Readiness Squadron will order the BEF-approved type of specific respirator and respirator cartridges upon workplace request. "Suitable substitutes" for a particular brand of respirator or respirator cartridge are not authorized since it would violate manufacturer and federal health laws.

3.7. Supervisors of workplaces where respiratory protection is used will:

3.7.1. Identify to BEF all workers who will be wearing respirators and ensure they do not wear a respirator until they have received a qualified medical evaluation and initial respiratory protection training and fit testing.

3.7.2. Supervisors will provide and document all initial and annual training conducted by BEF on the employee's AF Form 55, Employee Safety and Health Record or equivalent computer generated training record. The annual refresher education on work place hazards and protective equipment IAW appropriate AFOSH Standards will also be documented in the workers AF Form 55.

3.7.3. Ensure that annual respiratory protection training has been conducted and a Respirator Fit Letter is available for each worker on the respiratory protection program. This should also be documented on the AF Form 55, Employee Safety and Health Record or equivalent computer generated training record.

3.7.4. The workplace supervisor shall contact BEF at extension (609) 754-9057 to schedule fit-testing and training. This should be done at least two weeks prior to fit-testing new additions to the section.

3.7.5. Coordinate with BEF for guidance on the procurement of respirators. Ensure the appropriate respirator and cartridges, for which the individual was fit-tested, is ordered and received. These are listed on the Respirator Fit Letter.

3.7.6. Ensure that a copy of this instruction and AFOSH Std. 48-137 is maintained in the workplace and that a workplace specific operating instruction has been established which describes the respiratory protection program.

3.7.7. Ensure that an adequate number of respirators are available, one for each employee preferably, unless the respirator is used for non-routine task; i.e. less than once a month or the respirator is being for used emergency rescue, spill cleanups or short-term on-the-job training.

3.7.8. Ensure that respirators are maintained in a dry clean area. They will not be stored in tool-boxes, dusty areas, chemical storage lockers or where they may be exposed to direct heat or sunlight.

3.7.9. Observe employee operations and habits closely to identify conditions that will create a break in the seal between the face and respirator. Interference with the respirator seal can be caused by chewing gum; having a beard or mustache in areas where the respirator face piece contacts the face; having excessive sideburns, lack of dentures and eyeglass frames.

3.7.10. T.O. 42B-1-22 describes the circumstances under which breathing air sources must be monitored for air quality. The organization owning the equipment that produces the breathing air is required to collect these samples. The organization will forward a copy of all breathing air quality results to BEF within 10 duty days of receipt of the sample results.

3.8. Workers wearing respirators will:

3.8.1. Be familiar with the shops' Respiratory Protection OI and have a valid Respirator Fit Letter, available for inspection.

3.8.2. Be responsible for the care and maintenance of the respirator issued to them. Before using, inspect the respirator for damaged, worn out or missing parts, accomplish a leakage test before each use and store the respirator in an approved location.

3.8.3. For each type of work specified, use only the type of respirator with the NIOSH approved filters and/or canisters approved by Bioenvironmental Engineering.

3.8.4. Be sure that airline and emergency respirators are used as directed by the supervisor and written OI.

3.8.5. Do not chew gum or have facial conditions (beard, mustache) that could prevent the mask from sealing, or wear headgear that might interfere with the respirator. Gas permeable and soft contact lenses may be worn while performing any duties requiring the use of an industrial respirator. Vision correction inserts are available for full-face respirators.

3.8.6. Attend all mandatory occupational exams, respirator fit-test appointments and training IAW this instruction and applicable AFOSH standard.

3.8.7. Workers entering confined spaces i.e. manholes, fuel tank entries, will wear SCBA unless otherwise permitted, in writing, from BEF for a lower level of protection.

4. The Respiratory Protection Program (RPP):

4.1. Each worker on the RPP must be medically cleared for respirator use before a respirator may be worn. Medical evaluations, as determined by AFOSH Std 48-137, will be the responsibility of the AMDS Physical Exams Section. Physical Exams should be contacted at 754-9019, (alternate-9014)

to schedule an appointment for evaluation. BEF will be notified in writing of all medical evaluations for respirator qualification.

4.2. Once medically cleared, BEF will fit-test and train all users with the same type of respirator that was approved. A Respirator Fit Letter will be issued to all individuals who successfully pass the medical evaluations, fit-testing and training. If an individual does not qualify for a Respirator Fit Letter, he/she must not use a respirator. Supervisors will ensure everyone is qualified to wear respirators.

4.3. Each worker on the RPP will receive annual respirator fit-testing and training on the use and limitation of respiratory protection equipment and specific workplace hazards by BEF. (More frequent fit-testing may be required based on the contaminant that the wearer is being protected against.)

4.4. All duty sections with personnel on the RPP shall establish a workplace operating instruction (OI) on respiratory protection. Once completed, the OI must be reviewed and approved by BEF. In addition, the workplace must possess a copy of AFOSH Std 48-137, Respiratory Protection Program. AFOSH 48-137 provides guidance on an acceptable OI.

5. Testing and Training:

5.1. During Bioenvironmental Engineering industrial hygiene surveys, supervisors will be briefed. This will include the requirements of the respiratory protection program, nature and extent of respiratory hazards to which workers may be exposed, and the principles and criteria used for selecting the type of respirators. This briefing will be documented in the survey report and annotated on the survey review sheet.

5.2. Supervisors will in-turn document initial and annual training conducted by BEF on the employee's AF Form 55, Employee Safety and Health Record or equivalent computer generated training record.

5.3. The workplace supervisor shall contact BEF at extension (609) 754-9057 to schedule fit-testing and training. This should be done at least two weeks prior to fit-testing new additions to the section.

5.4. Annual fit-testing will be scheduled between the BEF and the shop supervisor. The fit-testing will be conducted in conjunction with the annual training. All fit-testing, including quantitative, shall be performed by BEF. All training will be performed by BEF with the exception of those individuals who use SCBA in which case the Base Fire Department will conduct the training.

5.5. Initial and annual training will be conducted by BEF and documented on the Respirator Fit Letter for all workers on the RPP. Training will cover at a minimum the following topics:

5.5.1. Nature of the respiratory hazards (acute and chronic) and what could happen if the respirators are not used correctly.

5.5.2. Explanation of why engineering and administrative controls are not adequate to eliminate or reduce the respiratory hazards.

5.5.3. Reason for selecting a specific type of respirator and its operation; capabilities and limitations to include proper wear of the respirator and its operation, capabilities and limitations to include proper wear of the respirator, suggested maintenance and storage with manufacture recommendations.

5.5.4. Proper method for recognizing and handling emergency situations.

5.6. A refit of respirator is required if the worker changes weight by more than 20 pounds or receives extensive dental work, facial cosmetic surgery, scarring, or disfigurement. Supervisors are urged to call our office so the individual can be fit-tested.

6. Procurement of Respirators: Individual shops will ensure that BEF has approved the use of a respirator before it is procured to include local purchase and base supply orders. Only NIOSH certified respirators will be authorized. BEF will be consulted if there is a question regarding NIOSH certification. There are no “suitable substitutes” for a particular brand of respirator or respirator filter/cartridge.

6.1. Elective use respirators: Government employees in Air Force work conditions are not authorized to wear elective use respirators.

6.2. Filtering face piece devices: Filtering face pieces may be worn at the discretion of an Air Force employee, strictly for comfort purposes and will not be placed on the RPP. They are **not** considered respirators because the face pieces are made of absorbing or filtering material; they have no changeable filters or cartridges and are usually disposable (i.e. dust mask, tuberculosis mask, etc). These filtering face piece devices do not have an inhalation valve and may or may not have an exhalation valve. Personnel who chose to wear filtering face piece devices must receive initial and update training from their supervisors as outlined in AFI 91-301, to explain the limitations of these devices.

6.3. Bearded workers will only be allowed to wear supplied-air, positive pressure type or a powered air-purifying respirator with a hood or shroud, which operates in the continuous flow mode. The respirator shall not have a tight fitting face piece, and shall not incorporate an anti-aspiration device, which contacts the face or neck.

6.4. Workers using respirators for protection against isocyanate (monomer or prepolymer) during polyurethane painting operations will:

6.4.1. Use supplied air respirator for spray-painting or touch-up polyurethane painting operation indoors, regardless of environmental controls or quantity of paint used. When painting in an open area such as a hanger, all unprotected personnel should be removed. Less restrictive waivers will be granted in case-by-case basis by BEF for operations where safety may be an issue, e.g. aircraft tail painting. Note aircraft touch-up painting operations are specified in T.O. 42A-1-1, para. 3-1c.

6.4.2. Use a full-face piece, air-purifying respirator with organic vapor cartridges and HEPA filters when performing touch-up and stenciling painting operations with polyurethane paints outdoors ONLY or roll-on/ brush polyurethane painting applications regardless of location, environmental controls and quantity used.

PAMELA J. REIDY, Colonel, USAF, NC
Commander, 305th Medical Group